

What is claimed is:

1 1. Apparatus for use in an encoder to ensure integrity of a hypothetical decoder
2 buffer of a video buffer verifier comprising:
3 an encoder buffer including a bit content;
4 a transmission controller supplied with a representation of a prescribed number of
5 bits for controllably inhibiting transmission of bits from said encoder buffer; and
6 a calculator for generating said representation of said prescribed number of bits in
7 accordance with a prescribed relationship dependent on said encoder buffer bit content,
8 and an end of picture indication.

1 2. The apparatus as defined in claim 1 wherein said transmission controller in
2 response to said representation of said prescribed number of bits controllably inhibits
3 transmission of bits from said encoder buffer upon said number of bits being read out
4 from said encoder buffer.

1 3. The apparatus as defined in claim 2 wherein said calculator includes a detector
2 for determining whether said picture has ended substantially on time.

1 4. The apparatus as defined in claim 3 wherein said prescribed number of bits is
2 said encoder buffer bit content when said detector indicates that said picture ends
3 substantially on time.

1 5. The apparatus as defined in claim 3 wherein said calculator is supplied with a
2 first indication of said encoder buffer bit content when said picture actually ended and a
3 second indication of said encoder buffer bit content when said picture should have ended.

1 6. The apparatus as defined in claim 5 wherein said prescribed number of bits is
2 determined to be, in response to said first indication and said second indication, a number
3 of bits in said encoder buffer bit content when said picture should have ended less any
4 new bits written into said encoder buffer during an interval between when said picture
5 actually ended to when said picture should have ended, when said detector has
6 determined that said picture has ended early relative to an expected time for said picture
7 to end.

1 7. The apparatus as defined in claim 6 wherein said encoder buffer includes a
2 write pointer having a position representative of the number of bits written into said
3 encoder buffer, said write pointer position at the time said picture actually ended being

4 said first indication and said write pointer position at the time said picture is expected to
5 end being said second indication.

1 8. The apparatus as defined in claim 7 wherein said new bits written into said
2 encoder buffer is equal to said second indication less said first indication.

1 9. The apparatus as defined in claim 3 wherein said transmission controller is
2 essentially disabled from inhibiting transmission of bits from said encoder buffer during
3 an interval from a time when said picture should have ended to a time when said picture
4 actually ended, when said detector determines that said picture will end late.

1 10. The apparatus as defined in claim 9 wherein said prescribed number of bits is
2 a number of bits in said encoder buffer bit content when said picture actually ended,
3 when said detector has determined that said picture has ended late.

1 11. A method for use in an encoder to ensure integrity of a hypothetical decoder
2 buffer of a video buffer verifier comprising the steps of:

3 storing bits in an encoder buffer;

4 controllably inhibiting transmission of bits from said encoder buffer in response
5 to a representation of a prescribed number of bits; and

6 generating said representation of said prescribed number of bits in accordance
7 with a prescribed relationship dependent on a number of bits stored in said encoder
8 buffer, and an end of picture indication.

1 12. The method as defined in claim 11 wherein said step of controllably
2 inhibiting, in response to said representation of said prescribed number of bits,
3 controllably inhibits transmission of bits from said encoder buffer upon said number of
4 bits being read out from said encoder buffer.

1 13. The method as defined in claim 12 further including a step of determining
2 whether said picture has ended substantially on time.

1 14. The method as defined in claim 13 wherein said prescribed number of bits is
2 said number of bits stored in said encoder buffer when said step of determining indicates
3 that said picture ends substantially on time.

1 15. The method as defined in claim 13 wherein said step of generating utilizes a
2 first indication of said number of bits stored in said encoder buffer when said picture

3 actually ended and a second indication of said number of bits stored in said encoder
4 buffer when said picture should have ended.

1 16. The method as defined in claim 15 wherein said step of generating includes a
2 step of utilizing said first indication and said second indication to generate said
3 representation of said prescribed number of bits as being a number of bits stored in said
4 encoder buffer when said picture should have ended less any new bits written into said
5 encoder buffer during an interval between when said picture actually ended to when said
6 picture should have ended, when said detector has determined that said picture has ended
7 early relative to an expected time for said picture to end.

1 17. The method as defined in claim 16 wherein said encoder buffer includes a
2 write pointer having a position representative of the number of bits written into said
3 encoder buffer, said write pointer position at the time said picture actually ended being
4 said first indication and said write pointer position at the time said picture is expected to
5 end being said second indication.

1 18. The method as defined in claim 17 wherein said new bits written into said
2 encoder buffer is equal to said second indication less said first indication.

1 19. The method as defined in claim 13 wherein said step of controllably
2 inhibiting transmission is essentially disabled from inhibiting transmission of bits from
3 said encoder buffer during an interval from a time when said picture should have ended
4 to a time when said picture actually ended, when said step of determining determines that
5 said picture will end late.

1 20. The method as defined in claim 19 wherein said prescribed number of bits is
2 a number of bits in said encoder buffer bit content when said picture actually ended,
3 when said detector has determined that said picture has ended late.